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IIF Engineering Support Task Statement of Work

12/19/2008

1.0 Scope

This Draft Statement of Work (SOW) specifies the support and services required by the Integration and Interoperability Facility (IIF) organization for both the En Route and Oceanic laboratories. Both facilities are located at the William J. Hughes Technical Center (WJHTC).

The Integration and Interoperability Facility (IIF) provides engineering services to support NAS En Route and Oceanic infrastructure modernization and exploration. There are two separate physical laboratories: the En Route IIF (EIIF) and the Oceanic IIF (OIIF). The term IIF refers to both facilities. The IIF organization provides engineering and infrastructure support including laboratory operations and maintenance, engineering services, and training services. Engineering services include: proof-of-concept studies, prototype development, early engineering assessments, system-level integration and verification, demonstrations, user evaluations, scenario development, human-in-the loop simulations, air traffic and airway facilities familiarization, and system development and maintenance. The IIF organization provides laboratory maintenance, system problem determination and resolution, and system upgrades to the IIF baseline configuration. The EIIF is an ISO 9001: 2000 certified laboratory.

The IIF organization uses high fidelity laboratories and technical expertise to facilitate exploration and demonstration of future systems. The IIF organization assists in providing decision points for system design, engineering, and evolution within the FAA's En Route and Oceanic domains. The IIF organizational goal is to provide cost effective products and services including efficiently managed laboratory facilities. Laboratory support also includes optimizing laboratory operations to support non Research and Development activities such as Air Traffic and Airways Facilities training, and 2nd level maintenance.

The IIF activities are initiated, directed, and funded by FAA Headquarters organizations. The Facility Manager (AJP789) and staff report to AJP78 and AJP7 under the Air Traffic Organization (ATO) Operations Planning unit. AJP789 is responsible for the management of the facility and coordination of all technical activities. Close coordination between the Facility Manager and IIF FAA staff, FAA Headquarters sponsors, other technical organizations at the WJHTC, and IIF support contractors will be established to ensure all goals and objectives are satisfied.

Note that tasks may be assigned in accordance with the Acquisition Management System (AMS), Next Generation (NextGen) Implementation Plan and Solution Sets, Operational Evolution Plan (OEP), other FAA plans, policies, orders or related guidelines as necessary. Other programs may be also added at the discretion and direction of the Contracting Officer (CO) and the Contracting Officer's Technical Representative (COTR)/Delivery Order Contracting Officer's Technical Representative (DOCOTR)/ Alternate Technical Officer (ATO) .

1.2 Locations

The Contractor shall perform the work activities described in this Draft SOW on-site at the William J. Hughes Technical Center (WJHTC) En Route IIF, Oceanic IIF, and/or offsite as required. However, some tasks may require the Contractor to travel to one or more locations to be determined in support of the work effort, at the direction of the COTR/ATO:

- Prime Contractor Facilities
- FAA Headquarters
- Other locations necessary to support this Draft SOW

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1.3 General Tasks

Tasks for Draft SOW activities may include, but not be limited to the following:

- IIF Operations Support
- IIF Equipment software and hardware maintenance
- IIF ISO 9001: 2000 certification activities
- FAA En Route and Oceanic domain engineering support
- IIF administrative support
- Support and maintenance of the IIF non-operational infrastructure

Additional tasks may be added at the discretion of the CO/COTR/DOCOTR/ATO.

Specialized Labor Categories may be required to support these tasks.

2.0 Specific Tasks

Tasks for the IIF Engineering Services (ES) contract may include, but not be limited to the following list of support tasks. Additional tasks may be added at the discretion of the CO/COTR/DOCOTR/ATO. Specialized Labor Categories may be required to support these tasks.

2.1 IIF Engineering Services Support

The IIF offers engineering services to other entities within the FAA and aviation community. The IIF ES contract will include tasking to provide these services. Engineering services included, but are not limited to the following:

- Prototype development
- Development of productivity improvement tools
- Assessment of new Air Traffic or Airways Facilities functions
- Engineering support in integrating a new product into the NAS
- Engineering support for system data reduction and analysis
- Simulation scenario development
- User evaluation support
- Engineering support for training
- Requirements verification

2.2 ISO 9001:2000 Certification and Maintenance Support

As previously stated, the EIIIF is an ISO 9001: 2000 certified laboratory. The IIF ES contract will include tasking to maintain this certification. Tasking will include also establishing or modifying ISO processes for the OIIF.

2.3 Facility Property/Configuration Management

Facility configuration management will be included in the IIF ES tasking. All configuration changes shall be fully coordinated with IIF staff, shall comply with the agency security regulations, custodial property processes, and be appropriately documented. The contractor shall coordinate these efforts with other FAA contractors as required.

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2.3 Laboratory Scheduling and Operating Procedures

Support for facility scheduling, schedule optimization, and development/maintenance of facility operating procedures will be included in the IIF ES contract tasking.

2.4 Laboratory Operations Support

The following tasks are included as a part of IIF laboratory operations:

- Facility laboratory operations 24 hour-a-day/7-day a week
- Laboratory user support for systems initialization and shutdown
- Laboratory user data reduction and analysis support
- Laboratory troubleshooting

2.5 IIF Subsystem Maintenance

The following subsystem will be maintained as a part of the IIF ES contract:

- En Route Automation Modernization Subsystem (ERAM)
- Display System Replacement Subsystem (DSR)
- En Route Communications Gateway (ECG)
- Advanced Technologies and Oceanic Procedures (ATOP)
- Oceanic 21
- En Route Training Voice Communication Tool (ETVCT)
- Host and Oceanic Computer System Replacement (HOCSR)
- Enhanced Backup System (EBUS)
- User Request Evaluation Tool (URET)
- Store and Forward Application (SAFA)
- Host Application Data Distribution System (HADDS)
- System Driver Interfacility and Radar DSR Simulator (SIRDS)
- Graphical Scenario Generation Tool (GSGT)
- FAA Computer Based Instruction (CBI) system

2.6 System Installation Support

Systems are periodically installed at the IIF. Support will be required to conduct installation activities. These activities may include:

- Hardware installation
- Plan and conduct Installation and Integration (I&I) Testing
- System and application software installation
- System Integration

2.7 NextGen Support

Support for Integration of the FAA's Next Generation (NextGen) program capabilities may be included as a part of the IIF ES Contract.

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2.8 Second level maintenance support for the ETVCT

The ETVCT system which was developed and deployed by the EIIIF organization is also being maintained by the EIIIF organization. Support for development, test, documentation, and deployment of new ETVCT software releases to the twenty Air Route Traffic Control Centers will be included in the IIF ES contract tasking. Additionally, this task will require periodic coverage of a duty phone help desk line. This line is operated 24 hours a day seven days a week and requires response time within thirty minutes.

2.9 IIF non-operational infrastructure support

To support facility operations, the IIF includes computer network infrastructure outside of the baseline En Route and Oceanic operational systems. This infrastructure includes desktop processors, servers, and network equipment. Maintenance and support of this infrastructure will be included in the IIF ES contract tasking. Additionally, maintenance of the IIF web sites/web based databases may be required as a part of the IIF ES contract tasking.

2.10 Program Management

The contractor shall develop and manage scheduling and tracking systems to maintain IIF laboratory and project schedules as well as any other IIF information databases. IIF laboratory resource scheduling includes scheduling of operational equipment, conference room and training facilities scheduling, and scheduling of support personnel. Management of project schedules includes development and tracking of IIF project schedules and periodic report preparations.

2.11 Additional Support

The contractor shall perform the following additional tasks:

- Provide project/program status using FAA systems and processes
- Provide data management support
- Manage facility resource allocation and scheduling
- Develop and prepare briefing packages, status reports, brochures, handouts and other information materials in various mediums
- Plan and schedule conferences and meetings as requested by the FAA, including:
 - Preparation of background and support material
 - Arranging facilities and coordinating accommodations
 - Scheduling conference facilities and attendees
 - Post-meeting activities and documentation
- Organize, prepare and execute IIF displays and exhibits for technical conferences
- Provide briefing material and/or conduct briefings on any project information, as requested